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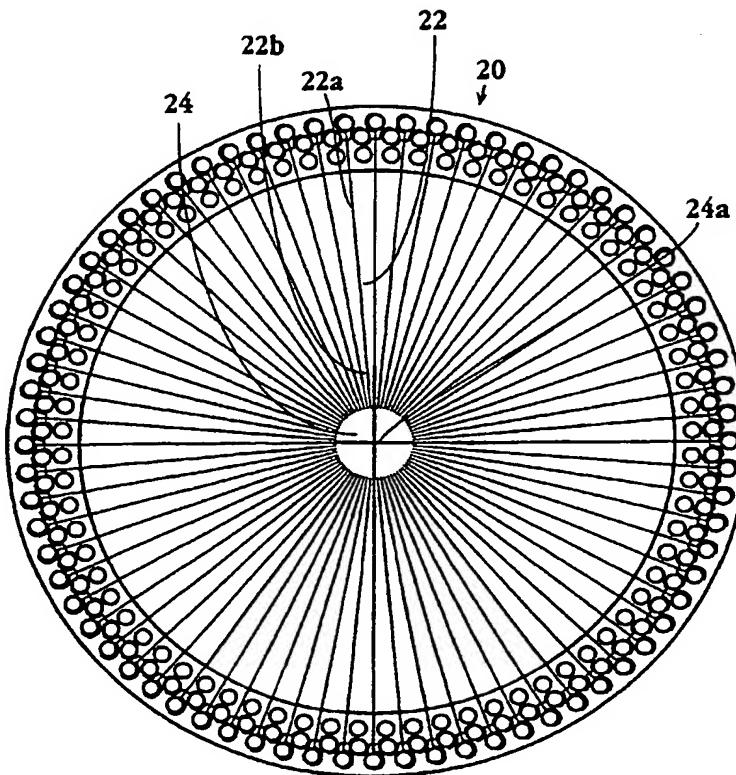
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[Continued on next page]

(54) Title: **HIGH DENSITY ELECTROPHORESIS DEVICE AND METHOD**



(57) Abstract: The apparatus comprises a disc-shaped substrate (20) defining a central reservoir (24), a plurality of coplanar electrophoretic channels (22) in fluid communication with, and emanating substantially radially from, the central reservoir (24), and each channel (22) having a proximal end (22a) which is linked to the central reservoir, and a distal end (22b), and preferably for each channel, at least one chamber, and preferably three chambers, linked by a passageway in fluid communication with the distal end of that channel. Preferably, each passageway leads from each chamber in a direction that is initially away from the central reservoir, whereby centrifugation of the substrate about a central axis that is perpendicular to the channels is effective to disperse liquid from the central reservoir into the chambers, channels, and passageways such that any air bubbles in the chambers, channels, and passageways are forced towards the axis of rotation, when such liquid is present in the central reservoir.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G01N 27/26, 27/447
 US CL :204/450,451,455,600,605

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 204/450,451,455,600,605

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPAT, EPOABS, JPOABS, DERWENT, CAPLUS
 search terms: electrophor\$8, disc, disk, circular, circle

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,872,010 A (KARGER et al) 16 February 1999 see entire document, especially Fig. 1A & 3	1 - 6 , 10 , 11 , 1 4,15,18-20,23
Y		----- 10-15,21,22
A	US 6,100,535 A (MATHIES et al) 08 August 2000	1-23
A	US 6,126,804 A (ANDRESEN) 03 October 2000	1-23
A	US 6,143,152 A (SIMPSON et al) 07 November 2000	1-23

<input type="checkbox"/>	Further documents are listed in the continuation of Box C.	<input type="checkbox"/>	See patent family annex.
* Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance		"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date		"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"&"	document member of the same patent family

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